South Pacific Division

Uniform Performance Standards for Compensatory Mitigation Requirements

August 2012

(12505.4-SPD – An attachment to 12505-SPD – Current to 8/09/2012)

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Summary

- General details
- List of documents
- Procedure: flow chart
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- Examples
- FAQ’s
- POC’s

Uniform Performance Standards for Compensatory Mitigation Requirements

US Army Corps of Engineers

12505-SPD
REGULATORY PROGRAM
UNIFORM PERFORMANCE STANDARDS FOR COMPENSATORY MITIGATION REQUIREMENTS

South Pacific Division

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1.0 Purpose. The purpose of this document is to outline the procedure for use of uniform performance standards associated with permittee-responsible compensatory mitigation requirements as required for processing of Department of the Army (DA) permits, and for the development of mitigation banks and in lieu fee programs, under Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act, and Section 103 of the Marine Protection, Research, and Sanctuaries Act.

2.0 Applicability. This process applies to the Regulatory Program within South Pacific Division (SPD), including its four subordinate districts, Albuquerque District (SPA), Sacramento District (SPK), Los Angeles District (SPL) and San Francisco District (SPN). Subordinate offices or organizations shall not modify this procedure to form a specific (local) procedure.

3.0 References.

Ambrose, R.F., Callaway, J. C., and S. F. Lee. 2007. An Evaluation of Compensatory Mitigation Projects Permitted Under Clean Water Act Section 401 by the California State Water Resources Control Board, 1991-2002. Prepared for California State Water Resources Control Board. 158 pp.

Compensatory Mitigation for Losses of Aquatic Resources (33 C.F.R. Part 332).

Environmental Law Institute. 2004. Measuring Mitigation: A Review of the Science for Compensatory Mitigation Performance Standards. Washington D.C.

Gardner, R.C., Zedler, J., Redmond, A., Turner, R.E., Johnston, C. A., Alvarez, V. R., Simenstad, C. A., Prestegaard, K. L., and W. J. Mitsch. 2009. Compensating for Wetland Losses Under the Clean Water Act (Redux): Evaluating the Federal Compensatory Mitigation Regulation. National Wetlands Newsletter, Vol. 31, No. 2, pp. 2-7, 20.

National Academy of Sciences. 2001. Compensating for Wetland Losses Under the Clean Water Act. NATIONAL ACADEMY PRESS 2101 Constitution Avenue, N.W. Washington, D.C. 20418. 332 pp.

Streever, B. 1999. "Examples of performance standards for wetland creation and restoration in Section 404 permits and an approach to developing performance standards." WRP Technical Notes Collection (TN WRP WG-RS-3.3). U.S. Army Engineer Research and Development Center, Vicksburg, MS.

4.0 Related Procedures.

12501-SPD Standard Operating Procedure for Determination of Mitigation Ratios.

5.0 Definitions.

Compensatory mitigation - The restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Condition - The relative ability of an aquatic resource to support and maintain a community of organisms having a species composition, diversity, and functional organization comparable to reference aquatic resources in the region.

Enhancement - The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Uniform Performance Standards

- **Finalized May 2012, by regional PDT (3 year effort)**
- **Updated August 2012**

- **Benefits:**

  - **Better predictability for regulated community**
  - **Increased ability of Regulatory agencies to ensure compliance**
  - **Better gauge of long-term ecological viability of mitigation sites**
  - **Allow improved scientific comparison between mitigation sites**

- **Focus:**

  - **Ecological performance standards (not water treatment)**
  - **Incorporation of reference sites**
  - **Incorporation of functional/condition assessments**

- **Applicability:**
  - **Permittee-responsible mitigation**

Uniform Performance Standards

- **Overall goals:**
  - **Uniform PS language, not specific targets**
    - ✓ **Why? Specific targets would require substantial research**
    - ✓ **Different aquatic resources and ecoregions throughout four Districts**
    - ✓ **Good goal for future, funded effort by region**
  - **Expand beyond flora-based PS**
    - ✓ **Why? Flora-based PS do not represent full suite of ecological functions provided by impacted and mitigation sites**
- **Preliminary tie-ins in to existing functional/condition assessments**
  - **Area for future expansion as use of functional/condition assessments increases**

Uniform Performance Standards

- **Procedure includes:**
  - **1 Flowchart**
  - **2 Attachments**
    - ✓ **1. Table of Uniform Performance Standards (Excel file)**
    - ✓ **2 . Worksheet**
    - ✓ **3. Examples**
    - ✓ **4. Training presentation**

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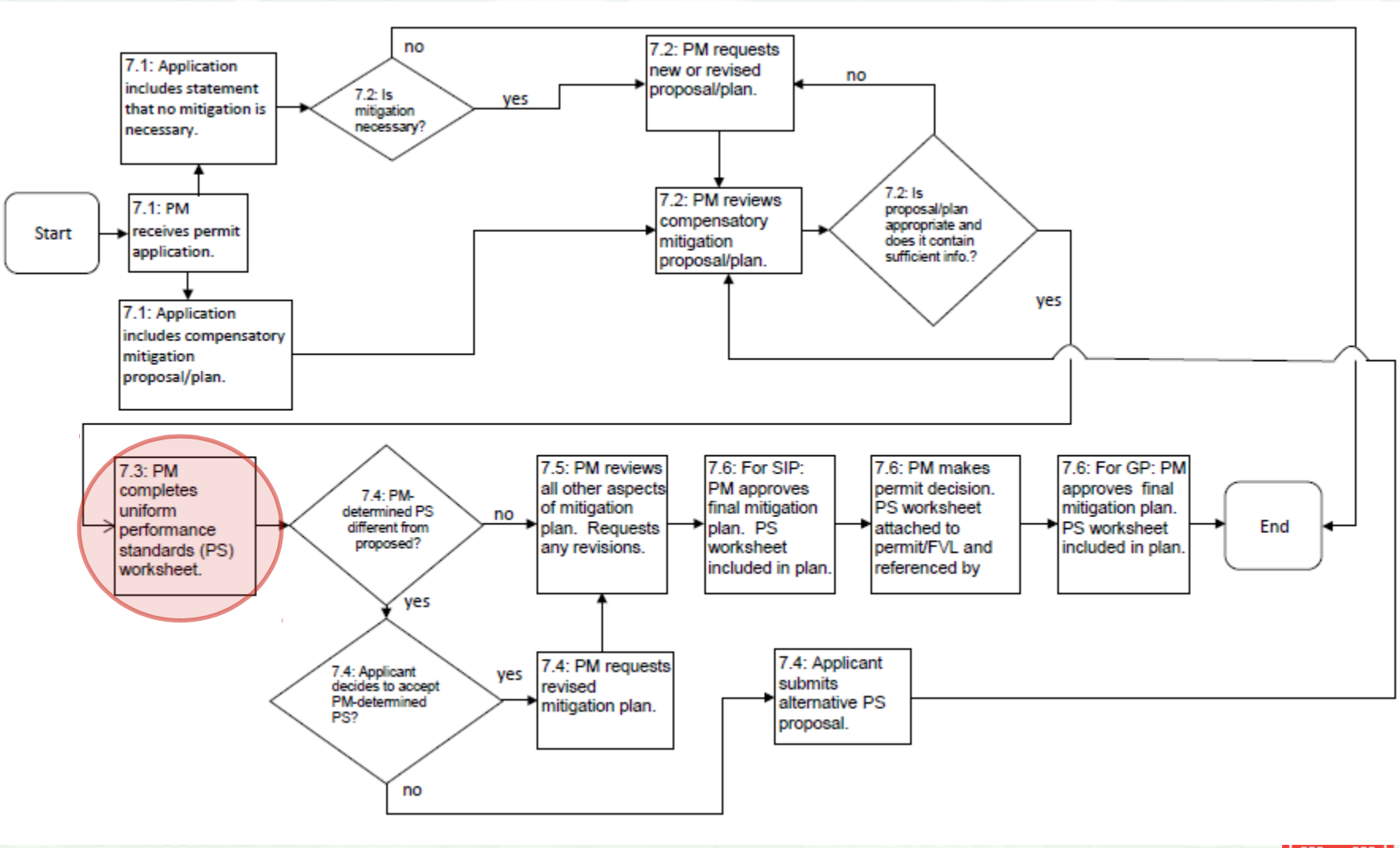
UPS Flow Chart


Start
7.1: PM receives permit application.
7.1: Application includes statement that no mitigation is necessary.
7.2: Is mitigation necessary?
no
yes
7.2: PM requests new or revised proposal/plan.
7.1: Application includes compensatory mitigation proposal/plan.
7.2: PM reviews compensatory mitigation proposal/plan.
7.2: Is proposal/plan appropriate and does it contain sufficient info.?
no
yes
7.3: PM completes uniform performance standards (PS) worksheet.
7.4: PM-determined PS different from proposed?
no
yes
7.5: PM reviews all other aspects of mitigation plan. Requests any revisions.
7.6: For SIP: PM approves final mitigation plan. PS worksheet included in plan.
7.6: PM makes permit decision. PS worksheet attached to permit/FVL and referenced by
7.6: For GP: PM approves final mitigation plan. PS worksheet included in plan.
End
7.4: Applicant decides to accept PM-determined PS?
yes
no
7.4: PM requests revised mitigation plan.
7.4: Applicant submits alternative PS proposal.

Attachment 1
Table of Uniform Performance Standards

- Excel spreadsheet format

- Types of aquatic resources addressed:
  - Riverine
  - Tidal
  - Slope wetlands
  - Depressional wetlands
  - (Buffer habitat)

- Types of performance standards included:
  - Physical
  - Hydrologic
  - Faunal-Diversity Index
  - Flora
  - Water quality (ecological)

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Attachment 1 (continued) Table of Uniform Performance Standards

- Table fields (columns):
  - Performance Standard
  - Reference
  - Target
  - Timing
  - Applicability
  - Suggested measure
  - CFCAM metric
  - Design considerations
  - Guidance
- Table “demo” in Excel
  - Open attachment 12505.1

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Attachment 2: UPS Worksheet

Attachment 12505.2 Worksheet for SPD Uniform Performance Standards for Compensatory Mitigation Requirements

1	Date: DA no.: Project manager:	Mitigation site name: Cowardin/HGM type: Habitat type: Site coordinates: Center/1st endpoint: Lat: Lon: 2nd endpoint (if linear) Lat: Lon:	Reference site name: Site coordinates: Center/1st endpoint: Lat: Lon: 2nd endpoint (if linear) Lat: Lon:
2	Mitigation objective(s) to improve: [ ] habitat conservation/biodiversity; [ ] water storage/flow attenuation; [ ] water quality; [ ] target population of special status biota; [ ] specific aquatic resource function(s); [ ] other:		
3	Mitigation type (select one): [ ] re-establishment; [ ] establishment; [ ] rehabilitation; [ ] enhancement		
	If enhancement, indicate function(s) to be increased: function 1: function 2 (if applicable): function 3 (if applicable):		
4	Primary type(s) of site treatment: [ ] introduction of plant materials; [ ] invasive species control; [ ] hydrological manipulation; [ ] topographic/substrate manipulation		
5	Aquatic resource type (select one): [ ] riverine; [ ] depressional wetland; [ ] tidal wetland; [ ] slope wetland; [ ] other:		
6	Performance standard categories (select all that apply): [ ] physical; [ ] hydrologic; [ ] fauna; [ ] flora; [ ] water quality (ecological)		
7	Using selections from 2-6 above, insert applicable performance standards and targets from .12505.1-SPD Table of Uniform Performance Standards for Compensatory Mitigation Requirements into worksheet rows below. Add or remove rows for any category, as needed.		

Number/Categories:	Performance Standards:	Targets ("R" indicates reference):				
Physical-1		Year 1:	Year 2:	Year 3:	Year 4:	Year 5:
Physical-2						
Physical-3						
Hydrologic -1						
Hydrologic -2						
Hydrologic -3						
Fauna-1						

Attachment 2: UPS Worksheet

Flora-1						
Flora -2						
Flora -3						
Flora -4						
Flora -5						
Flora -6						
Flora -7						
WQ-1						
WQ -2						
WQ -3						

Attachment 3: Examples

- Establishment of southern willow scrub riparian habitat
- Re-establishment of depressional wetlands and associated swales
- Restoration of historic salt marsh habitat

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Example 2: Re-establishment of depressional wetlands and associated swales (page 1)

Attachment 12505.2 SPD uniform performance standards worksheet

1	Date: 5/31/12 DA no.: 2012-00xxx Project manager: Oski Bear	Mitigation site name: Northern CA Bank Cowardin type/HGM: palustrine, emergent, seasonally flooded/ depressional Habitat type: depressional wetland Site coordinates: Center/1st endpoint: Lat: 38°08'01"N Lon: 121°53'07"W 2nd endpoint (if linear) Lat: Lon:	Reference site name: Reference B Site coordinates: Center/1st endpoint: Lat: 38°16'26"N Lon: 121°46'15"W 2nd endpoint (if linear) Lat: Lon:
2	Mitigation objective(s) to improve: [X] habitat conservation/biodiversity; [ ] water storage/flow attenuation; [ ] water quality; [ ] target population of special status biota; [ ] specific aquatic resource function(s); [ ] other:		
3	Mitigation type (select one): [X] re-establishment; [ ] establishment; [ ] rehabilitation; [ ] enhancement		
	If enhancement, indicate function(s) to be increased: function 1: function 2 (if applicable): function 3 (if applicable):		
4	Primary type(s) of site treatment: [X] introduction of plant materials; [ ] invasive species control; [X] hydrological manipulation; [X] topographic/substrate manipulation		
5	Aquatic resource type (select one): [ ] riverine; [X] depressional wetland; [ ] tidal wetland; [ ] slope wetland; [ ] other:		
6	Performance standard categories (select all that apply): [X] physical; [X] hydrologic; [ ] fauna; [X] flora; [ ] water quality (ecological)		
7	Using selections from 2-6 above, insert applicable performance standards and targets from 12505.1-SPD Table of Uniform Performance Standards for Compensatory Mitigation Requirements into worksheet rows below. Add or remove rows for any category, as needed.		

Number/Categories:	Performance Standards:	Targets ("R" indicates reference):				
Physical-1	The permittee shall ensure the mitigation site provides diverse physical features or surfaces contributing to depressional wetland habitat function. Specifically: a. By year 2, the site must contain 25% or more of the number of structural patch types found at the selected reference site. b. By year 3, the site must contain 50% or more of the number of structural patch types found at the selected reference site. c. By year 4, the site must contain 75% or more of the number of structural patch types found at the selected reference site. d. By year 5, the site must contain 90% or more of the number of structural patch types found at the selected reference site.	Year 1: N/A	Year 2: 25%	Year 3: 50%	Year 4: 75%	Year 5: 90%
Physical -2	N/A					
Physical -3	N/A					

Example 2: Re-establishment of depressional wetlands and associated swales (page 2)

Hydrologic -2	N/A					
Hydrologic -3	N/A					
Fauna-1	The permittee shall ensure a Shannon-Wiener Diversity index of target riparian/aquatic species present within the boundary of mitigation site, including approved buffer, equal to at least 80% of reference site by year 5.	10% R	20% R	40% R	60% R	80% R
Flora-1	The permittee shall ensure target of ≥75% of reference absolute cover of wetland species (OBL or FACW) is met by year 5.	≥50% of reference	≥75% of reference	≥75% of reference	≥75% of reference	≥75% of reference
Flora -2	The permittee shall ensure ≥75% relative cover of native species by year 5.	≥50% relative cover	≥75% relative cover	≥75% relative cover	≥75% relative cover	≥75% relative cover
Flora -3	The permittee shall ensure target native species richness values are met by year 5.	≥50% of reference	≥75% of reference	≥75% of reference	≥75% of reference	≥75% of reference
Flora -4	N/A					
Flora -5	N/A					
Flora -6	N/A					
Flora -7	N/A					
WQ-1	N/A-no specific water quality concerns present.					
WQ -2	N/A					
WQ -3	N/A					

Frequently Asked Questions (FAQ)

- **Q1: Do I have to complete the UPS worksheet for all my Regulatory projects?**

  - A: Completing the UPS worksheet is an SPD requirement for any project requiring compensatory mitigation (Permittee-responsible), as well as for the development of mitigation banks and in lieu fee programs.

- **Q2: If multi-agency performance standards have been established in my area for a particular habitat type, do I still need to use this procedure instead?**

  - A: Yes, the UPS worksheet should be completed and stored as part of the administrative record, but you can continue to use the multi-agency performance standards.

- **Q3: How should the UPS worksheet be included in the administrative record?**

  - A: The final worksheet must be included in the final mitigation plan, and/or as an attachment to and by special condition in the permit/final verification letter (the preference is for the worksheet to be included in both).

FAQs (continued)

- **Q4: The table includes a large number of performance standards. Am I required to use all of them?**

  - A: Use as appropriate. As stated in part 7.3.6: "The PM will select all applicable performance standard categories (hydrologic, physical, fauna, flora, water quality (ecological). While some performance standard categories may not be applicable to all aquatic resource types and/or mitigation types, in general, project managers should strongly consider selecting all categories (except for water quality which should be selected when specific water quality concerns are present), with the exception of cases where the mitigation type is to be enhancement, as enhancement by definition only increases one or a few functions. For re-establishment, establishment, and rehabilitation, selection of all performance standard categories will ensure that functional lift is measured across the full range of functions."

- **Q5: The uniform performance standards don't apply to my watershed/habitat type/ecoregion- what should I do?**

  - A: If more applicable, scientifically-based performance standards and/or targets are available for habitats in your area, these can be used. However, from part 7.3.7 of the procedure: "The PM may deviate from the performance standards and targets contained in the SPD Uniform Performance Standards Table (attachment 12505.1); however, alternative performance standards must be both measurable and enforceable. If in doubt, a project manager should consult his/her supervisor, a senior project manager, or any member of the uniform performance standards PDT."

FAQs (continued)

- **Q6: Many of the categories (such as riverine physical) have multiple performance standards- how do I choose?**
  - A: As a first step, review the columns in grey. These are the "guidance" columns (applicability, suggested measure, CFCAM metric, design considerations, guidance) and should help you decide if a particular performance standard applies to your proposed mitigation site. If you're still in doubt, seek the advice of your supervisor, a senior project manager, and/or one of the members of this PDT (POC's listed below).
- **Q7: Can I suggest changes to this procedure?**
  - A: Yes, this is a QMS procedure and comments can be added using the QMS system (or sent directly to the PDT). Periodic updates/improvements are likely to occur. (But try it a few times first!)

POC's (PDT)

- **SPA: Deanna Cummings**
- **SPD: Thomas Cavanaugh**
- **SPK: Will Ness**
- **SPL:**
  - **Dan Swenson (PDT lead)**
  - **Corice Farrar**
  - **Spencer Macneil**
  - **Michelle Mattson**
  - **Sallie McGuire**
  - **Stephen Estes**
  - **John Markham**
  - **Jae Chung (now at IWR)**
- **SPN:**
  - **Laurie Monarres**
  - **David Wickens**
  - **Sahrye Cohen**
  - **Paula Gill**
  - **Philip Shannin (now at SAS)**

Questions?

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